

REMARKS

This responds to the Official Action dated October 18, 2006 and the Advisory Action dated March 7, 2007. In order to advance prosecution, withdrawn claims 1-11 and 34-41 are canceled without prejudice or disclaimer. Applicants reserve the right to file these claims in a divisional application.

In the Advisory Action, the Examiner points out that figure 5 was elected as a species for examination purposes. The election of species requirement was between figure 4 directed to a transceiver on one PCI card to be installed *in a personal computer* and figure 5 directed to a transceiver residing *in an external box*. There were no other choices provided for this election of species requirement. The claims are each directed to a transceiver residing in an external box. These claims were subsequently examined by the Examiner.

During examination, applicants are allowed to amend the claims. The amendments did not change the claims to read on a transceiver card located in a personal computer as disclosed by figure 4. Figure 5 is simply a species within a broader disclosure of transceivers residing in an external box. These were the claims that were examined.

Claim 1 was further clarified to note that the power supply and amplifier are located external to the box. The independent claims were amended to clarify that radio frequency signals are received from and transmitted to the satellite.

Claims 15-16 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The Examiner contends that the specification does not support claim 15, lines 6-12, "a receiver portion.... and including a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer."

It is first noted that the description of the transmitter card and receiver card in figure 5 relies on the description of these cards in figure 3, which in turn relies on the description of the cards for figure 2. The descriptions of figures 5 and 3 point out the differences from the description in figure 2. Otherwise, the elements represented by the same numbers are generally identical in construction and operation. Thus synthesizer 14, controller 26, digital-analog

converter 16, and modulator 40, for example, appear in all three of figures 2, 3, and 5. Hence, the description of the found at page 12, lines 11-16, supports the instant claims:

Synthesizer 14 generates a specific radio frequency for a chosen channel of communication for example 1000 MHz, according to commands received from controller 26. The radio frequency is modulated using baseband signal levels from a digital-analog converter 16, so that the modulated signal output from the synthesizer is compatible with an industry-standard protocol.

The controller 26 provides commands to control the frequency synthesis and modulated output. Hence the frequency synthesizer and modulator are programmable as the controller provides the commands to these items. Moreover, the modulation scheme is “selectable” as described in the middle paragraph on page 3 also supporting the modulator is programmable. Withdrawal of this rejection is requested.

Claims 13-14, 25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Carhart (6,622,304) in view of Fleming (US 6,073,188), and further in view of Bukhari (US 6,763,222).

Instant claim 13 requires a transceiver that resides in a box external to the computer and that transmits radio frequency signals to the satellite responsive to data received from the personal computer via the USB type port and that receives radio frequency signals from the satellite and converts the received signals to data for transfer to the personal computer via the USB type port, wherein the transceiver further includes a VSAT network hub, the transceiver including a satellite antenna interface for coupling power supply external to the box to a satellite antenna amplifier external to the box via a connection which transmits radio frequency signals. The satellite transceiver is isolated by the noise created by the high power/high voltage supply in the computer and the high voltage supply in the network hub.

Conventionally, two cards were utilized for transmit and reception from a satellite in a personal computer. This involved a complex arrangement where the transmit card was coupled to a receive card via the industry standard bus in the personal computer. This arrangement was deficient in that the transient noise from the power supply to other components in the PC hindered the operation of the sensitive satellite transceivers. That is, satellite signals are very weak and difficult to pick up and power supplies with their high voltage interfere with this reception. The instant claims solve this problem by providing an external power supply.

Claim 13 has been amended to clarify that the power supply and amplifier are external to the box and that the radio frequency signals are transmitted to and received from the satellite. Claim 25 was accordingly canceled.

Bukhari simply discloses a VSAT terminal coupled to an indoor unit in a conventional manner. “During normal operations, the IDU 24 receives data from the user’s equipment (not shown in Fig. 1) and modulates a reference signal in accordance with this data.” This user’s equipment is, of course, a PC or other similar device. The indoor unit (IDU) 24 supplies the outdoor unit (ODU) with a DC voltage signal. However, there is no teaching or suggestion of a power source external to the IDU as claimed. Instead, Fig. 1 of Bukhari seems to indicate that the power source is contained inside the IDU, and this suffers from the same deficiencies that the present invention was designed to overcome.

Carhart shows at best a PC interface card coupled between a computer and a CATV cable. Carhart is not related to transmitting and receiving signals via a satellite or discusses a VSAT network hub. Thus, Carhart does not teach or suggest a transceiver for transmitting to and from satellites including a VSAT network hub as claimed in Claim 13 either alone or in combination much less the unique arrangement of the present invention including the external power supply. The power supply is co-located with the modulator. See Figure 10. There is no disclosure whatsoever on how this may be done. In short, there is no disclosure whatsoever on how the system could be configured to be coupled to a satellite.

Fleming is directed to an electronic switching box (102) to enable two or more computer systems to share external peripheral devices as well as internal devices. See column 3, lines 33-38. The switching box contains a USB hub (122) including USB ports. The USB hub enables one or more external peripheral devices to be coupled to the electronic switchbox such as a mouse, electronic pen, keyboard, monitor, printer or joystick. Fleming is not directed to communicating with a satellite or the use of a transceiver. There is nothing in Fleming that would suggest to one skilled in the art to use a VSAT network hub in Carhart to arrive at the instant claims much less the unique power supply arrangement of the present invention.

It is submitted that applicants have argued the combination of documents and have shown that one skilled in the art would not have modified Carhart based on Fleming. Withdrawal of this rejection is requested.

Claims 15-16, 18, 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Carhart (6,622,304), in view of Dinwiddie et al. (US 6,481,013), and further in view of Seta (US 5,301,194).

Claim 15 includes a transmitter portion that resides in a box external to the computer and that transmits radio frequency signals responsive to data received from the personal computer via the USB type port; and a receiver portion that resides in the external box and that receives radio frequency signals and converts the received signals to data for transfer to the personal computer via the USB type port, further including an auxiliary bus directly connecting the transmitter portion and the receiver portion, wherein a synchronizing signal is conveyed from the receiver portion to the transmitter portion via the auxiliary bus and including a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer.

In the instant claims, separate transmitter and receiver portions are claimed in the external box. The transmitter portion has large power requirements to upload information to the satellite. The receiver portion, however, needs to receive very low, weak signals. These signals are often faint and hard to receive, and the noise from the transmitter portion transmitting to the satellite can interfere with the reception of the signals from the satellite. By providing separate transmitter and receiver portions in the external box, the reliability of receiving a signal by the receiver portion is improved.

Carhart is directed to providing cable TV and internet services through a cable. CATV 10 distributes signals via cable (11) to various households. The peripheral card in Carhart, whether external or internal to the computer, does not teach or suggest a transmitter portion and a receiver portion to transmit and receive signals from a satellite as claimed. Carhart further does not teach that the receiving portion includes a programmable frequency synthesizer and programmable modulator for allowing a transmission/reception frequency and modulation to be selectively modified by the personal computer and a synchronizing signal is conveyed from the receiver portion to the transmitter portion. As noted above, Carhart shows at best a PC interface card coupled to a cable. In short, there is no disclosure whatsoever on how the system could be configured if coupled to a satellite. Thus Carhart clearly does not appreciate separate transmitter

and receiver portions in an external box, nor does Carhart recognize that the reliability of receiving the signal from the satellite is improved by the claimed arrangement.

Dinwiddie is also directed to a CATV system, not a VSAT system and likewise does not teach or suggest separate transmitter and receiver portions in an external box. Nor does Dinwiddie recognize that the reliability of receiving signals from a satellite is improved by the claimed arrangement. Dinwiddie does not remedy the defects of Carhart.

Seta shows a local office at one location and a central office at another location with the use of a synchronization signal. Seta does not even relate in any way to a transceiver portion, much less how to structure the connections between a transmitter portion and a receiver portion. Seta does not remedy the defects of Carhart. Withdrawal of this rejection is requested.

Claims 26 and 31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Carhart (6,622,304) in view of Bukhari (US 6,763,222) and further in view of Fleming (US 6,073,188) and Seta (US 5,301,194). This rejection is traversed for the reasons provided above. Withdrawal of this rejection is requested.

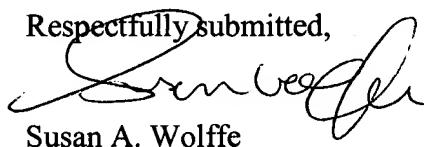
CONCLUSION

In view of the above amendments to correct informalities, cancellation of the withdrawn claims, and remarks, issuance of a Notice of Allowance is respectfully requested.

If any additional fees are required or if an overpayment is made, the Commissioner is authorized to debit or credit our Deposit Account No. 19-0733, accordingly.

Dated: 4/13/07

Respectfully submitted,



Susan A. Wolffe
Registration No. 33,568

Banner & Witcoff, Ltd.
1001 G Street, N.W.
Washington, D.C. 20001-4597
Tel: (202) 824-3000
Fax: (202) 824-3001